CANDIDATE LIST OF MCLS RECOMMENDED FOR ADOPTION INTO STATE/TRIBAL WATER QUALITY STANDARDS TO PROTECT THE WATER SUPPLY DESIGNATED USE

EPA Region VIII, January 1999

All concentrations expressed as ug/l, except where noted.

Chemical Name	CASRN	**SDWA MCL**	SDWA MCLG	CWA § 304(a) Water & Org(1)	Adopted Water Supply Criterion CO	MT	ND	SD	UT	WY	CSKT	FTPECK	Potential Health Effects from Ingestion of Water (2)
PRIORITY POLLUTANTS													
Chlorobenzene	108-90-7	**100**	100	680 (20#)	100	20	680	680	680	680	20	20	Liver, kidneys
1,2,4-Trichlorobenzene	120-82-1	**70**	70	260	70	70	-	-	-	-	70	70	Adrenal glands
1,1,1-Trichloroethane	71-55-6	**200**	200	-	200	200	200	-	-	200	200	200	Liver, nervous system, circulatory system
1,2-Dichlorobenzene	95-50-1	**600**	600	2700	620	600	2700	2700	2700	2700	600	600	Liver, kidneys, circulatory system
1,4-Dichlorobenzene	106-46-7	**75**	75	400	75	75	75	400	400	75	75	75	Anemia, liver, kidneys, spleen, blood
1,2-trans-Dichloroethylene	156-60-5	**100**	100	700	100	100	700	700	700	700	100	100	Liver
Ethylbenzene	100-41-4	**700**	700	3100	680	700	3100	3100	3100	3100	700	700	Liver, kidneys
Hexachlorocyclopentadiene	77-47-4	**50**	50	240 (1.0#)	50	1	240	240	240	240	1	1	Kidneys, stomach
Toluene	108-88-3	**1000**	1000	6800	1000	1000	6800	6800	6800	6800	1000	1000	Nervous system, kidneys, liver
Antimony	7440-36-0	**6**	6	14	6	14	14	14	14	14	14	14	Blood cholesterol, blood sugar
Beryllium	7440-41-7	**4**	4	-	4	40	0.0077	-	-	0.0077	4	4	Intestinal lesions
Cadmium	7440-43-9	**5**	5	-	5	5	10	-	10	10	5	5	Kidneys
Chromium (total)	7440-47-3	**100**	100	-	50	100	50	-	50	50	100	100	(3)
Cyanide	57-12-5	**200**	200	700	200	200	200	700	700	200	200	200	Thyroid
Lead	7439-92-1	TT(4)	zero	-	50	15	50	-	50	50	15	15	Physical/mental development (children), kidney, high blood pressure (adults)
Nickel	7440-02-0	(5)	(5)	610	100	100	610	610	-	610	100	100	Heart, liver (6)
Selenium	7782-49-2	**50**	50	170	50	50	10	-	10	10	50	50	Hair, fingernail, numbness, circulatory sytem
NON-PRIORITY POLLUTANTS													
Alachlor	15972-60-8	**2**	zero	-	2	2	-	-	-	-	2	2	Eye, liver, kidneys, spleen, anemia, cancer
Atrazine	1912-24-9	**3**	3	-	3	3	-	-	-	-	3	3	Cardiovascular system, reproductive system
Carbofuran	1563-66-2	**40**	40	-	36	40	-	-	-	-	40	40	Blood, nervous system, reproductive system

CANDIDATE LIST OF MCLS RECOMMENDED FOR ADOPTION INTO STATE/TRIBAL WATER QUALITY STANDARDS TO PROTECT THE WATER SUPPLY DESIGNATED USE

EPA Region VIII, January 1999

All concentrations expressed as ug/l, except where noted.

Chemical Name	CASRN	**SDWA MCL**	SDWA MCLG	CWA § 304(a) Water & Org(1)	Adopted Water Supply Criterion CO	MT	ND	SD	UT	WY	CSKT	FTPECK	Potential Health Effects from Ingestion of Water (2)
2,4-D	94-75-7	**70**	70	100 rb	70	70	-	-	100	100	70	70	Kidneys, liver, adrenal glands
Dalapon	75-99-0	**200**	200	-	200	200	-	-	-	-	200	200	Kidneys
Di(2-ethylhexyl)adipate	103-23-1	**400**	400	-	400	400	-	-	-	-	400	400	Reproductive system
Dibromochloropropane	96-12-8	**0.2**	zero	-	0.2	0.2	-	-	-	-	0.2	0.2	Reproductive system, cancer
Dichloroethylene (cis-1,2-)	156-59-2	**70**	70	-	70	70	-	-	-	-	70	70	Liver
Dinoseb	88-85-7	**7**	7	-	7	7	-	-	-	-	7	7	Reproductive system
Diquat	85-00-7	**20**	20	-	20	20	-	-	-	-	20	20	Cataracts
Endothall	145-73-3	**100**	100	-	100	100	-	-	-	-	100	100	Stomach, intestines
Ethylene dibromide (EDB)	106-93-4	**0.05**	zero	-	0.05	0.05	-	-	-	-	0.05	0.05	Liver, stomach, reproductive system, kidneys, cancer
Glyphosate	1071-83-6	**700**	700	-	700	700	-	-	-	-	700	700	Kidneys, reproductive system
Methoxychlor	72-43-5	**40**	40	100 rb	40	40	-	-	100	100	40	40	Reproductive system
Oxamyl (Vydate)	23135-22-0	**200**	200	-	200	200	-	-	-	-	200	200	Nervous system
Picloram	1918-02-1	**500**	500	-	500	500	-	-	-	-	500	500	Liver
Simazine	122-34-9	**4**	4	-	4	4	-	-	-	-	4	4	Blood
Styrene	100-42-5	**100**	100	-	100	100	-	-	-	-	100	100	Liver, kidneys, circulatory system
Xylenes	1330-20-7	**10,000**	10,000	-	10000	10000	-	-	-	-	10000	10000	Nervous system
Fluoride	7782-41-4	**4,000**	4,000	-	2000	4000	-	4000	(7)	-	4000	4000	Bone, teeth
Nitrite	14797-65-0	**1,000**	1,000	-	1000	1000	-	-	-	-	1000	1000	Methemoglobulinemia
RADIOLOGICAL (in pCi/l, except where noted)													
Alpha emitters	Multiple	**15**	zero	-	-	150	15	-	15	-	15	15	Cancer
Beta/photon emitters	12587-47-2	**4** mrem/y	zero	-	-	40mrem/y	-	-	50	-	4 mrem/y	4 mrem/y	Cancer
Combined Radium 226 & 228	13982-63-6 15262-20-1	**5**	zero	-	5	200	5	-	5	-	20	20	Cancer

NOTES:

(1) This column shows current published CWA § 304(a) human health criteria, in most cases assuming consumption of 2 liters of water and 6.5 grams of aquatic organisms per day. Values for carcinogens are calculated at a 10^{-6} incremental risk level.

(2) The potential health effects are based on consumption of water containing pollutant concentrations that exceed the MCL, in most cases, over many years. The listed effects are consistent with those that drinking water systems must disclose to the public, on an annual basis, where MCLs have been exceeded during the year covered by the report. See 63 Federal Register 44512-44536, 40 CFR Parts 141 and 142, National Primary Drinking Water Regulation: Consumer Confidence Reports, Final Rule, August 19, 1998.

(3) The MCL for chromium is based on a study using rats in which adverse health effects were not identified at the highest dose tested.

(4) For lead, the MCL requires a Treatment Technology; however, the action level is 15 ug/l.

(5) In early 1995, the nickel MCLG and MCL of 100 ug/l were remanded, based on an agreement between EPA and the Nickel Development Institute (and other industry parties). It was agreed that EPA had not fully addressed in the public record the petitioner's comments on the proposed methodology for deriving the nickel MCLG. To provide guidance for the period prior to new regulations for nickel, the EPA issued a lifetime health advisory for nickel of 100 ug/l. Nickel is included on the Agency's contaminant candidate list (CCL) to signify the Agency's intention to complete regulatory action for this contaminant.

(6) Potential health effects for nickel are taken from *Is Your Drinking Water Safe?*, EPA 810-F-94-002, May, 1994.

(7) Utah's fluoride criterion ranges from 1400-2400 ug/l, and varies as a function of the daily maximum mean air temperature.

\# Indicates § 304(a) criteria which are based on organoleptic (taste and odor) effects. Organoleptic-based criteria were recommended in the 1980 CWA § 304(a) criteria documents either where the organoleptic endpoint resulted in a more stringent value than the toxicity-based endpoint or where there were not sufficient data to calculate a toxicity-based criterion. Adoption of these criteria may be advisable to ensure full protection of designated and existing uses.

rb The § 304(a) criteria for 2,4-D and methoxychlor were included in EPA's Red Book, *Quality Criteria for Water*, 1976.

ACRONYMS:

CASRN Chemical Abstracts Service Registry Number
CSKT Confederated Salish and Kootenai Indian Tribes of the Flathead Indian Reservation.
FTPECK Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation.